

CLAIMS

1. A lid assembly for a rear trunk (2) of a vehicle having a roof (3) foldable into the trunk (2), the lid assembly having a front, a rear, and a longitudinal axis (XX'), and comprising firstly a lid (1, 100) which has a front edge and a rear edge, which is connected to the bodywork (6) of the vehicle in hinged manner and which is locked relative to said bodywork (6) in releasable manner, both in the vicinity of its front edge (4) and in the vicinity of its rear edge (5), so as to be movable between a closed position and a first open position by pivoting from the front backwards about a rear axis (10a) for the purpose of allowing the roof (3) to pass through and to be stowed, or between said closed position and a second open position by pivoting from the rear forwards about a front axis (7a) for the purpose of stowing luggage, and secondly control means (8) adapted to open the lid in both opening directions and to close it, said lid assembly being characterized in that the control means (8) comprise at least one articulated arm (9, 109) which is movable firstly between a retracted position in which the lid (1, 100) is in its closed position and a first deployed position in which the lid is in its open position in which it is opened from the front backwards, and secondly between said retracted position and a second deployed position in which the lid is in its open position in which it is opened from the rear forwards, and an actuator (22) which is connected to the articulated arm (9, 109) and to the bodywork (6, 106), and which is adapted to actuate the articulated arm.

2. A lid assembly according to claim 1, characterized in that the articulated arm (9) is disposed in the vicinity of a side wall (30) of the trunk (2) and comprises firstly a top rod (11) connected via its top end (13) to the lid (1) where the articulated arm (9) is mounted to pivot about a top axis (14) that is transverse to the

vehicle, and secondly a bottom rod (12) connected, in the vicinity of its bottom end (15), to the bodywork (6) in a manner such as to pivot about a bottom axis (17) that is transverse to the vehicle, and, in the vicinity of its top end (18), to the bottom end (19) of the top rod (11) in a manner such as to pivot about an intermediate hinge axis (20) that is transverse to the vehicle, said intermediate axis (20) being situated further forwards than the straight line (YY') that interconnects the bottom and the top hinge axes (14, 17), when the lid (1) is open backwards, the top axis (14) being situated between the front edge (4) and the rear edge (5) of the lid (1), preferably further forwards than the bottom axis (17) when the lid (1) is in the closed position.

3. A lid assembly according to claim 1 or 2, characterized in that the articulated arm (9) is disposed in the vicinity of a side wall (30) of the trunk (2) and comprises firstly a top rod (11) connected via its top end (13) to the lid (1) where the articulated arm (9) is mounted to pivot about a top axis (14) that is transverse to the vehicle, and secondly a bottom rod (12) connected, in the vicinity of its bottom end (15), to the bodywork (6) in a manner such as to pivot about a bottom axis (17) that is transverse to the vehicle, and, in the vicinity of its top end (18), to the bottom end (19) of the top rod (11) in a manner such as to pivot about an intermediate hinge axis (20) that is transverse to the vehicle, the articulated arm (9) defining, at said intermediate axis (20), an angle pointing forwards when the lid (1) is in its closed position and when it is in either of its open positions.

4. A lid assembly according to claim 1, characterized in that the articulated arm (109) is disposed in the vicinity of a side wall of the trunk and comprises firstly a top rod (111) connected via its top end to the

lid (100) where the articulated arm (109) is mounted to pivot about a top axis (114) that is transverse to the vehicle, and secondly a bottom rod (112) connected, in the vicinity of its bottom end, to the bodywork (106) in a manner such as to pivot about a bottom axis (117) that is transverse to the vehicle, and, in the vicinity of its top end, to the bottom end of the top rod (111) in a manner such as to pivot about an intermediate hinge axis (120) that is transverse to the vehicle, said intermediate axis being situated further backwards than the straight line (ZZ') that interconnects the bottom and the top hinge axes (114, 117), when the lid (100) is open forwards, and the top axis (114) being situated between the front edge and the rear edge of the lid, preferably further backwards than the bottom axis (117) when the lid is in the closed position.

5. A lid assembly according to any one of claims 2 to 4, characterized in that said top rod (11) is connected directly to the lid (1) in the vicinity of its top end (13) so as to allow said rod (11) and said lid (1) to pivot relative to each other about the top axis (14).

6. A lid assembly according to any one of claims 2 to 5, characterized in that the articulated arm (9) is arranged so that, when the lid (1) is open in either opening direction, the top end (18) of the bottom rod (12) is situated above the opening plane (32) of the rear trunk (2) that is defined by the top ends of the side walls (30) of the bodywork that define the rear trunk (2), the bottom rod (12) preferably being longer than the top rod (11).

7. A lid assembly according to claim 6, characterized in that the articulated arm (9) is arranged such that, when the lid (1) is open in either opening direction, the projection of the top rod (11) in the opening plane

extends beyond the perimeter defined by the top ends of the side walls (30).

5 8. A lid assembly according to any one of claims 2 to 7, characterized in that the bottom end (15) of the bottom rod (12) is hinged to a portion of the bodywork that forms the floor of the rear trunk (2).

10 9. A lid assembly according to any one of claims 2 to 7, characterized in that the bottom end (15) of the bottom rod (12) is hinged to a portion of the bodywork that defines an arch (31) for a wheel of the vehicle.

15 10. A lid assembly according to any one of claims 1 to 9, characterized in that the control means (8) are disposed entirely inside the rear trunk (2) when the lid (1) is in the closed position.

20 11. A lid assembly according to any one of claims 1 to 10, characterized in that the lid (1) is releasably locked relative to the bodywork via front locking means (7) and via rear locking means (10), the arm (9) being fixed directly to the lid (1), via its top end (13) in hinged manner, remotely from said hinge axes (7a, 10a) of
25 the lid (1), each of the front and rear locking members (7, 10) comprising a first coupling member (40) secured to the lid (1) and a second coupling member (41) secured to the bodywork (6), one of the coupling members (41) being mounted to move between an unlocking position in
30 which, when the lid (1) is in the closed position, it is disposed relative to the other coupling member (40) in a manner such that said other coupling member is released from it during opening of the lid (1), and a locking position in which, when the lid (1) is in a closed
35 position, it retains the other coupling member (40).

12. A lid assembly according to any one of claims 1 to 11, characterized in that the actuator (22) is an actuator (22) having a certain stroke, the articulated arm (9) and said actuator (22) being secured in hinged manner respectively to the bodywork (6) and to each other at points (17, 23a, 24) arranged so that the stroke of the actuator is substantially identical regardless of the opening direction of the lid, from the rear forwards or from the front backwards.
13. A vehicle provided with a lid assembly according to any one of claims 1 to 12.